

# Probability and Random Processes

## Assignment (2) (Bonus assignment)

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# Required

Prepare a 5-min talk about

**Poisson-binomial distribution**

Computation, simulation and applications

# Main points

Your talk should include

- **What's a Poisson-binomial PMF?**
- **MATLAB code for generating its PMF and CDF exactly.**
- **Approximating PMF using simulation.**
- **Solving a specific problem in reliability theory using this PMF.**